

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Shinichi HANDA, Hirofumi NAKAJIMA, Kenichi
KUBA, Hiroyuki SHIROGANE and Masaru
KOBAYASHI

Serial No.: 10/527,502

Group Art Unit: 2889

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Examiner: Bumsuk Won

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For: EL ELEMENT AND DISPLAY USING THE SAME

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR RECONSIDERATION

Sir:

In response to the Office Action mailed May 12, 2009, Applicants respectfully request reconsideration and withdrawal of the rejections of record based on the following arguments. Claims 1, 3, 4, 6, 8, 9 and 11-23 are pending herein.

Claims 1, 4, 6, 9 and 11 were rejected under §103(a) over JP '911 in view of Inoue; claims 3 and 8 were rejected under §103(a) over JP '911 in view of Inoue and further in view of Vong; claims 12-15 and 17-20 were rejected under §103(a) over JP '911 in view of Inoue and further in view of Bellmann; claims 16 and 21 were rejected under §103(a) over JP '911 in view of Inoue, Bellmann and further in view of Duggal; and claims 22 and 23 were rejected under §103(a) over JP '911 in view of Inoue and further in view of Duggal.

Independent claim 1 recites an EL element comprising a first film substrate, an EL part, and a sealant layer. The EL part comprises a first electrode, an insulating layer pattern, an EL layer, and a second electrode, wherein the insulating layer pattern is between the first electrode and the EL layer or between the EL layer and the second electrode and separates the entirety of the EL layer from the first or second electrode. The EL part is provided on a part of a surface of the first film substrate, the sealant layer is provided to cover the EL part and to cover an EL part-free part of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate. Claims 3, 4, 11 and 22 depend from claim 1.

Independent claim 6 recites an EL element comprising a first film substrate, an EL part, a sealant layer, and a second film substrate. The EL part comprises a first electrode, an insulating layer pattern, an EL layer, and a second electrode, wherein the insulating layer pattern is between the first electrode and the EL layer or between the EL layer and the second electrode and separates the entirety of the EL layer from the first or second electrode. The EL part is provided on a part of a surface of the first film substrate, the sealant layer is provided to cover the EL part and to cover an EL part-free part of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate, and a second film substrate is provided on the sealant layer. Claims 8, 9 and 23 depend from claim 6.

Independent claim 12 recites a display using an EL element, the EL element comprising a first film substrate, an EL part, and a sealant layer. The EL part comprises a first electrode, an insulating layer pattern, an EL layer, and a second electrode, wherein the insulating layer pattern is between the first electrode and the EL layer or between the EL layer and the second electrode and separates the entirety of the EL layer from the first or second electrode. The EL part is provided on a part of a surface of the first film substrate, the sealant layer is provided to cover the EL part and to cover an EL part-free part of the surface of the first film substrate in such a manner

that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate. The EL element is located on such a side that, upon energization of any one of or both the first film substrate side and the sealant layer side, fluorescent emission is viewable, and a light transparent pattern layer is formed on the fluorescent emission-viewable side.

Independent claim 17 recites a display using an EL element. The EL element comprises a first film substrate, an EL part, a sealant layer, and a second film substrate, the EL part comprising a first electrode, an insulating layer pattern, an EL layer, and a second electrode, wherein the insulating pattern is between the first electrode and the EL layer or between the EL layer and the second electrode and separates the entirety of the EL layer from the first or second electrode. The EL part is provided on a part of a surface of the first film substrate, the sealant layer is provided to cover the EL part and to cover an EL part-free part of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate. A second film substrate is provided on the sealant layer, the EL element is located on such a side that, upon energization of any one of or both the first film substrate side and the second film substrate side, fluorescent emission is viewable, and a light transparent pattern layer is formed on the fluorescent emission-viewable side. Claims 18-21 depend from claim 17.

The present invention includes *an insulating layer pattern* located between a first electrode and the EL layer or the between the EL layer and second electrode.

By providing *an insulating layer pattern* between a first electrode and an EL layer, the present invention provides the technical features that fluorescent emission takes place at positions corresponding to openings in the insulating layer pattern, while fluorescent emission does not take place at the positions other than the openings (see, e.g., specification, page 12, lines 8-10).

By providing *an insulating layer pattern* between the EL layer and second electrode, the present invention provides the technical features that during

energization of an EL element, a fluorescent emission pattern corresponding to the insulating layer pattern in the EL element is visible, and, in the parts other than the fluorescent emission pattern, the print can be view (see, e.g., specification, page 12, lines 21-24).

However, Applicants respectfully submit that JP '911 neither discloses nor suggests these technical features, since purpose of the insulation film 8 according to JP '911 is only insulting with respect to the other contents of the EL element, and the applied references do not overcome the deficiency of JP '911.

More specifically, the insulation film 8 of JP '911 covers the periphery of the lower "anode" electrode 3 (see JP '911, Fig. 2 and paragraphs [0038] and [0041]). In fact, Applicants respectfully submit that the Examples of JP '911 carry out masking except for the luminous region with insulation film (see JP '911, paragraphs [0068], [0073] and [0094]). Therefore, Applicants respectfully submit that JP '911 fails to disclose or suggest anything remotely related to forming an insulating layer pattern on/below the EL layer, as claimed.

The present invention relates to organic EL elements, while the secondary reference, Inoue, is directed to inorganic EL elements since the luminescent layer 4 of Inoue is made of inorganic materials (see Inoue, paragraph [0020]). It is generally understood that the inorganic EL element requires the application of a high electric field (about 10^6V/cm) in order to emit light from the luminescent layer. For this reason, the inorganic luminescent layer is completely covered with an insulating layer to emit light as basic action of the inorganic EL element and to undergo high applied electric field. Similarly, the inorganic luminescent layer 4 in Inoue is completely covered with the first insulating layer 3 and the second insulating layer 5 such as double insulating structure (see Inoue, Fig. 1 and paragraph [0021]).

Thus, Applicants respectfully submit that in Inoue, the inorganic EL element does not include an insulating layer pattern with openings, since providing such openings would effectively prevent the inorganic EL element from emitting light and thus completely subvert the goals and objectives of Inoue.

In conclusion, Applicants respectfully submit that one skilled in the art would never have considered Inoue to disclose or suggest providing an insulating layer pattern as a component of an organic EL element, particularly in the context of the presently claimed structure.

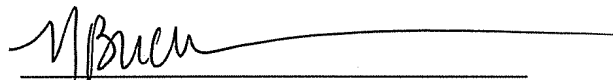
For at least the foregoing reasons, Applicants respectfully submit that the applied references fail to disclose or suggest each and every feature recited in the pending independent claims. Accordingly, Applicants respectfully submit that all claims pending herein define patentable subject matter over the applied references, and respectfully request that the above rejections be reconsidered and withdrawn.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

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Date


Stephen P. Burr
Reg. No. 32,970

Nicole J. Buckner
Reg. No. 51,508

SPB/NB/tlp

BURR & BROWN
P.O. Box 7068
Syracuse, NY 13261-7068

Customer No.: 025191
Telephone: (315) 233-8300
Facsimile: (315) 233-8320